



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,872	09/25/2001	Ho-Jin Kweon	47173/DBP/Y35	9178
23363	7590	02/04/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			TALBOT, BRIAN K	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/963,872	Applicant(s) KWEON ET AL.	
	Examiner Brian K Talbot	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,11-17,19,21-27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,11-17,19,21-27 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1762

1. Claims 1-7,9,11-17,19,21-27 and 29 remain in the application. Claims 8,10,18,20 and 28 have been canceled.

Claim Rejections - 35 USC § 103

2. Claims 1-7,9,11-17,19,21-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (5,733,685) in combination with Amatucci et al. (5,705,291) further in combination with either Kweon et al. (6,372,385), Kweon et al. (6,531,220) or Kweon et al. (6,653,021).

Wang (5,733,685) teaches a method of treating lithium manganese oxide spinel that involves heating the lithium manganese oxide spinel in an atmosphere of an inert gas that does not react with the spinel. The spinel is coated with a hydroxide, preferably lithium, sodium or potassium and then heated in an atmosphere of inert gas at elevated temperatures (abstract and col. 4, line 40m- col. 9, line 50).

Wang (5,733,685) fails to teach the incorporation of B, Al Ga, Si, Ge, Sn or As.

Amatucci et al. (5,705,291) teaches rechargeable battery cell having a surface-treated lithiated intercalation positive electrode. The coating can include a borate, aluminate, lithiated silicates or lithiated aluminates (abstract).

Therefore, it would have been obvious for one skilled in the art at the time the invention was made to have modified Wang (5,733,685) process by incorporating elements disclosed by Amatucci et al. (5,705,291) because of the reasonable expectation of achieving similar success as well as an improved reduction in self-discharge as disclosed by Amatucci et al. (5,705,291).

Art Unit: 1762

Wang (5,733,685) in combination with Amatucci et al. (5,705,291) fail to teach the incorporation of the compounds by coating with an alkoxide solution of the compounds.

Kweon et al. (6,372,385), Kweon et al. (6,531,220) or Kweon et al. (6,653,021) all teach coating lithiated compounds of various compositional make-ups with an alkoxide sol/solution to form a metal oxide coating on the lithiated compounds (see abstracts).

Therefore, it would have been obvious at the time the invention was made to have modified Wang (5,733,685) in combination with Amatucci et al. (5,705,291) process by coating the lithiated compound with an alkoxide solution as evidenced by Kweon et al. (6,372,385), Kweon et al. (6,531,220) or Kweon et al. (6,653,021) with the expectation of achieving similar results, i.e. producing a metal oxide coated lithiated compound.

Double Patenting

3. Claims 1-7,9,11-17,19,21-27 and 29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4-7 of U.S. Patent No. (6,653,021), or claims 1-6 of US Patent No. (6,372,385) or claims 4-6 of US Patent No. 6,531,220). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed scope includes coating lithiated compounds with an alkoxide solution to form a coated lithiated compounds. The claims vary slightly in the compositional make-up of the specific lithiated compound due to a change in the ranges of the subscripts.

Art Unit: 1762

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Response to Amendment

4. Applicant's arguments with respect to claims 1-7,9,11-17,19,21-27 and 29 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that Wang (5,733,685) in combination with Amatucci et al. (5,705,291) fails to teach utilizing an alkoxide composition to form a metal oxide coating on the lithiated compounds.


Kweon et al. (6,372,385), Kweon et al. (6,531,220) or Kweon et al. (6,653,021) all teach using a alkoxide sol/solution to coat on lithiated compounds.

Art Unit: 1762

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 2/3/04
Brian K Talbot
Primary Examiner
Art Unit 1762

BKT